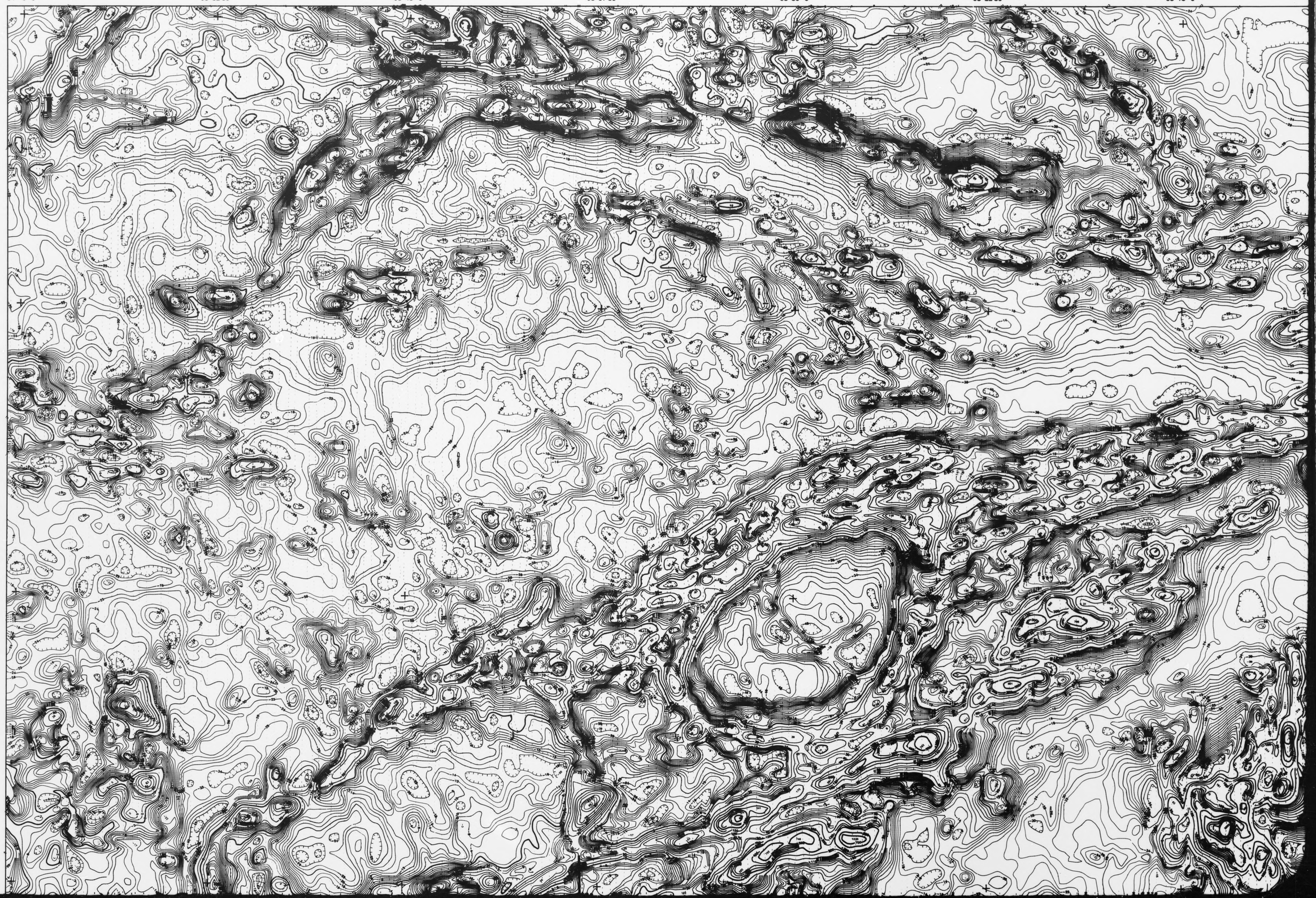
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE MINNESOTA GEOLOGICAL SURVEY

94 0' 0"
93 52'30"
93 45' 0"
93 37'30"
93 30' 0"
93 22'30"
93 15' 0"

48 0' 0"
47 52'30"
47 45' 0"
47 37'30"



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PREPARED IN COOPERATION WITH THE MINNESOTA GEOLOGICAL SURVEY

OPEN FILE REPORT NO. 88-008

93 45' 0" 93 37'30" 93 30' 0" 93 22'30" 93 15' 0" 93 7'30"

48 0' 0"

47 52'30"

47 45' 0"

EXPLANATION

Aeromagnetic contours show the residual magnetic intensity of the earth in gammas relative to an arbitrary datum. Contour intervals are: 20, 100, 500, and 2500 gammas. High gradient areas display only the larger contour intervals. Labels other than those found on contours show the magnetic intensity and position of local highs and lows. Actual values of highs, lows, and contours are equal to ten times their labeled values. Hachures indicate closed areas of lower magnetic intensity. Dashed lines show flight line positions. No attempt has been made to remove anomalies due to culture.

The aeromagnetic map was made from data acquired by the U.S. Geological Survey. The survey was flown by D. H. Kohret, R. W. Kriesman, C. R. Thompson, K. A. Sneddon, R. J. Horton, and H. A. Pierce of the U.S. Geological Survey and J. N. Mangin of Diversified Technical Services, Inc., during August to November, 1984 and June to November, 1985. The altitude was radar controlled at 300 feet (91 meters) above ground level and the flight lines were north south with a spacing of about 380 meters. A geoMetrics model G-813 proton precession magnetometer was used on the right wing tip with a sensitivity of 0.5 gammas and a cycle time of 0.5 seconds. The sampling interval was 0.4 seconds and the average aircraft speed was 90 nautical miles per hour (46 meters per second).

The data were gridded at 0.21336 kilometers using a minimum curvature program. (Webring, 1981) The reference field removed was the I.G.R.F., 1985 Julian day 180 (Peddie, 1982).

References

Peddie, N. W., 1982, International Geomagnetic Reference Field: The third generation: J. Geomag. Geoelectr., v. 34, p. 309-326.

Webring, M. W., 1981, MINC--A gridding program based on minimum curvature: U.S. Geological Survey Open-File Report 81-1224, 41 p.

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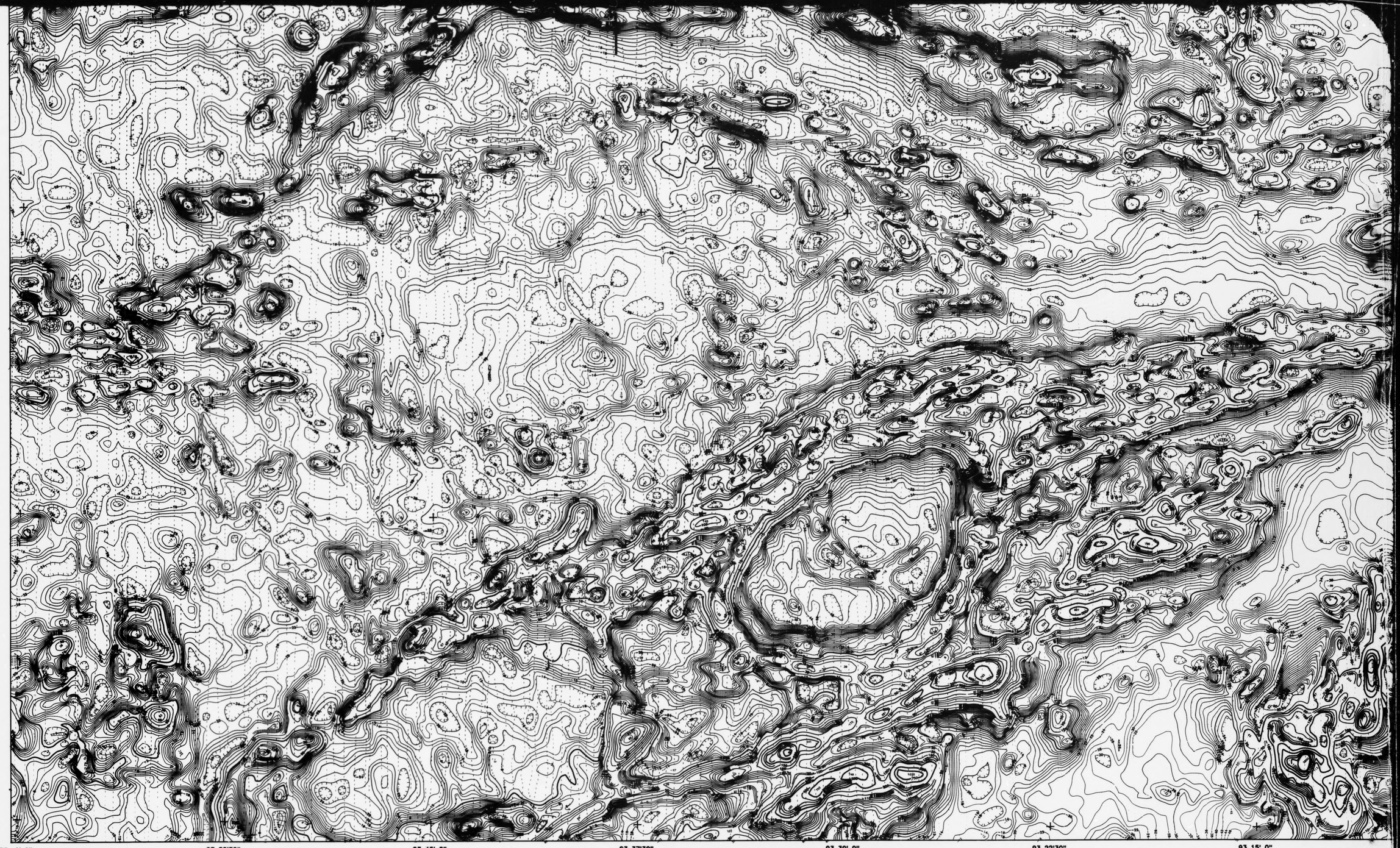

Aeromagnetic map of the northwestern part of the Hibbing 1° X 2° Quadrangle, Minnesota

Compiled by

R. E. Bracken and R. H. Godson

SCALE 1:62,500

1 1/2 0 1 2 3 MILES

1 0 1 2 3 KILOMETERS

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This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

Hangin of Diversified Technical Services, Inc., during August to November, 1984 and June to November, 1985. The altitude was radar controlled at 300 feet (91 meters) above ground level and the flight lines were north-south with a spacing of about 300 meters. A geometrics model G-813 proton precession magnetometer was used on the right wing tip with a sensitivity of 0.5 gammas and a cycle time of 0.5 seconds. The sampling interval was 0.4 seconds and the average aircraft speed was 90 nautical miles per hour (44 meters per second).

The data were gridded at 0.21336 kilometers using a minimum curvature program. (Webring, 1981) The reference field removed was the I.G.R.F., 1985 Julian day 180 (Peddie, 1982).

References

Peddie, N. W., 1982, International Geomagnetic Reference Field: The third generation: J. Geomag. Geoelectr., v. 34, p. 309-326.

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1 1/2 0 1 2 3 MILES

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